

CLAIMS:

1. A digital tuner having an input tuning range with a lower frequency limit and an upper frequency limit, said tuner comprising:

an upconverter for converting an input signal to an intermediate frequency signal whose frequency is higher than said upper frequency limit of said input tuning range, said upconverter having a local oscillator fundamental frequency which is greater than said upper frequency limit of said input tuning range; and

a zero intermediate frequency quadrature downconverter for converting said intermediate frequency signal from said upconverter to in-phase and quadrature baseband signals.

2. A tuner as claimed in claim 1, in which said upconverter is a variable upconverter for selecting a desired channel and said downconverter is a substantially fixed downconverter.

3. A tuner as claimed in claim 1, in which said upconverter is a substantially fixed upconverter and said downconverter is a variable downconverter for selecting a desired channel.

4. A tuner as claimed in claim 1, in which said upconverter is arranged to convert said input tuning range to an intermediate frequency range having a lower frequency limit and an upper frequency limit less than twice said lower frequency limit of said intermediate frequency range.

5. A tuner as claimed in claim 1, in which said tuner has an input, said downconverter has an input, and there is no frequency filtering between said input of said tuner and said input of said downconverter.

6. A tuner as claimed in claim 1, comprising first and second baseband filters for filtering said in-phase and quadrature baseband signals from said downconverter.
7. A tuner as claimed in claim 6, in which said first and second filters are low pass filters.
8. A tuner as claimed in claim 7, in which each of said low pass filters has a variable cut-off frequency, said tuner comprising a controller for controlling said variable cut-off frequency in accordance with a bandwidth of a received channel.
9. A tuner as claimed in claim 8, comprising a symbol rate detector for indicating said bandwidth of said received channel to said controller.

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